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well as material costs) by shipyard production shop and by ship work breakdown structure. (SWBS). It enables management to assess the impact on the shipyards and ship systems of:

Changes in depot-level maintenance/alterations policy;

Major changes in force levels and/or composition; and
Budgetary constraints.

DMPPS consists of a network of interdependent computer programs written in FORTRAN IV. It was developed at DTNSRDC using the CDC 6000 series computers and was subsequently converted for the IBM 360/370 series computers. It is now installed and operational at the NAVSEA 070 computer terminal (which accesses an IBM 370/168 computer). This document presents the IBM 360/370 version of the DMPPS program modules. The modules have been grouped into six subsystems. Each of Volumes 2-7 of this document describes, in detail, one of these subsystems. An executive summary of the entire DMPPS is presented in Volume 1. The content of the seven volumes is indicated as follows:

- Volume 1 - Executive Summary
- Volume 2 - Preprocessor Subsystem
- Volume 3 - Alterations Subsystem
- Volume 4 - Repair Subsystem
- Volume 5 - Synthesizer Subsystem
- Volume 6 - Report Generator Subsystem
- Volume 7 - Feedback Subsystem

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ABSTRACT

The Depot Maintenance Planning and Programming System (DMPPS) is a large computer system developed over a period of two and a half years by the David W. Taylor Naval Ship Research and Development Center (DTNSRDC), Code 186 for the Naval Sea Systems Command (NAVSEA), Code 070T. The System was developed to project shipyard resource requirements (i.e., labor mandays and costs as well as material costs) by shipyard production shop and by ship work breakdown structure (SWBS). It enables management to assess the impact on the shipyards and ship systems of

Changes in depot-level maintenance/alterations policy
Major changes in force levels and/or composition
Budgetary constraints

DMPPS consists of a network of interdependent computer programs written in FORTRAN IV. It was developed at DTNSRDC using the CDC 6000 series computers and was subsequently converted for the IBM 360/370 series computers. It is now installed and operational at the NAVSEA 070 computer terminal (which accesses an IBM 370/168 computer). This document presents the IBM 360/370 version of the DMPPS program modules. The modules have been grouped into six subsystems. Each of Volumes 2-7 of this document describes, in detail, one of these subsystems. An executive summary of the entire DMPPS is presented in Volume 1. The content of the seven volumes is indicated as follows:

- Volume 1 - Executive Summary
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- Volume 4 - Repair Subsystem
- Volume 5 - Synthesizer Subsystem
- Volume 6 - Report Generator Subsystem
- Volume 7 - Feedback Subsystem

7 FEEDBACK SUBSYSTEM

The shipyard feedback subsystem of the Depot Maintenance Planning Programming System (DMPPS) consists of two computer programs which process data on completed availabilities. The programs provide Depot Maintenance Planning Module (DMPM) profiles and shop vectors for repairs and alterations. Results obtained from the repair data may be used to update the mean values used in the repair data base. Results obtained from the alteration data may be used if the particular alterations are scheduled again.

Data from the shipyards are compiled by the Long Beach computer program 445 and sent on magnetic tape to DTNSRDC, Code 187, where the information is placed on a disk device. The file may have certain elements which are incompatible with FORTRAN programs and these incompatibilities are removed by a COBOL preprocessor program.

The program FDBK is run for selected groups of Customer Order Acceptance Records (COAR's) to obtain hard copy and/or punched cards for use in updating the data bases. The COAR groupings are selected to provide useful data base improvements, e.g., all repair COAR's for carrier types might be grouped. Alterations are reported by full job order number, and as such may be cross-referenced with departure reports to obtain the actual alteration identification numbers which appear in SAMIS.

A diagram of the subsystem is shown in Figure 7.0-1.

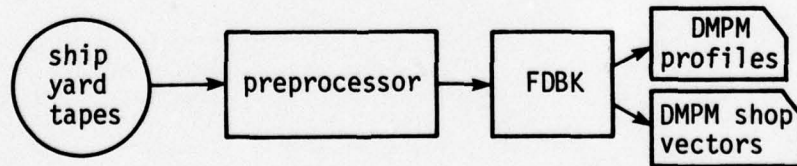


Figure 7.0-1 - Block Diagram of Feedback Subsystem

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7.1 PROGRAM FEEDBACK-PREPROCESSOR

7.1.1 DESCRIPTION

This program reads the shipyard shop data file and reformats it for use in program FDBK. This reformatting is necessary because certain entries in the data file may contain negative values as the result of transfer of funds. The negative values will be ignored by subsequent programs, since the transferred funds will have been entered elsewhere in the file. FORTRAN programs cannot read the negative sign superimposed by COBOL on the entries under consideration.

The COBOL preprocessor program reads each entry and, when a negative sign occurs, rewrites it as the leftmost character in the word; the numerical value remains right adjusted. If the third, fourth, and fifth characters of the COAR are nonnumeric, the program resets them to "000". The new file created in this manner, now compatible with FORTRAN read statements, is catalogued and copied to output.

7.1.2 RUN SET-UP

The following set-up is used to run the FEEDBACK-PREPROCESSOR program on the CDC 6700 computer:

```
USER,CM70000.  
CHARGE,USER,XXXXXXXXXX.  
ATTACH,TAPE1,FEEDBACKFILE,ID=CAAE.  
ATTACH,PROG,FEEDBACKPREPROCESSOR,ID=CAAE.  OBJECT CODE OF PREPROCESSOR  
REQUEST,TAPE7,*PF.  
PROG.  
CATALOG,TAPE7,FEEDBACKFILE,ID=USER,AC=XXXXXXXXXX.  EXECUTE PREPROCESSOR  
PURGE,TAPE1.  NEW FEEDBACK FILE  
REWIND,TAPE7.  
COPYSBF,TAPE7,OUTPUT.  
7/8/9  END OF RECORD
```

Feedback Preprocessor card inputs

```
7/8/9  END OF RECORD  
6/7/8/9  END OF FILE
```

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7.1.3 INPUT

7.1.3.1 Card Input

An input card which specifies the number of files to be processed is required in the following format:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Picture</u>
NUMBER-OF-FILES	Number of files to be processed	1-2	99
FILLER	Filler	3-80	X(78)

The shipyard shop data file is assigned to unit 7 and is organized as shown in Figure 7.1-1.

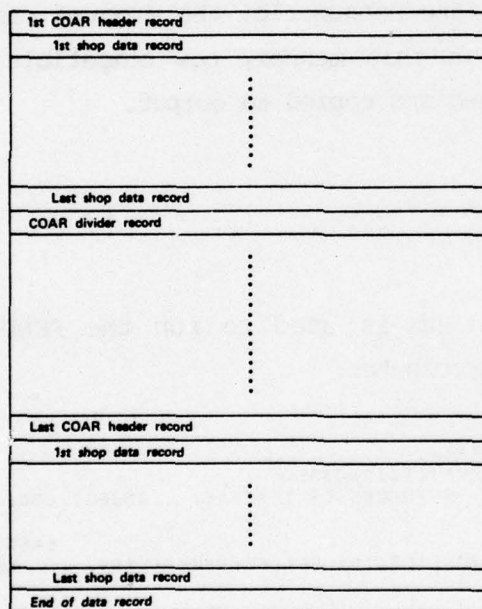


Figure 7.1-1 - Organization of Shipyard Shop Data File

7.1.3.2 Unit 7 - Shipyard Shop Data File

Data on completed shipyard work are grouped into bookkeeping units called COAR's (Customer Order Acceptance Records). These data are obtained from each yard and stored on the disk. The format of each record in the file is as follows:

INFILE-REC1 (Shop Data Record)

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Picture</u>
DATA1	First two characters of the COAR field	1-2	XX
AVAILABILITY	Next three characters of the COAR field	3-5	XXX
DATA2	SWBS and segment counter	6-13	X(8)
DATA3	Shop number	14-103*	XX
MANDAYS1	First character of mandays field		X
MANDAYS2	Next seven characters of mandays fields		S9(7)
MATERIAL1	First character of material expenditures field		X
MATERIAL2	Next seven characters of material expenditures field		S9(7)
TOTAL1	First character of total expenditures field		X
TOTAL2	Next seven characters of total expenditures field		S9(7)
FILLER	Filler	104-108	X(4)
DATA	Sequence number		X(5)

*This group occurs three times.

INFILE-REC2 (All Other Records)

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Picture</u>
WORK-CATEG	First two characters of the COAR	1-2	XX
HEAD-AVAIL- ABILITY-IN	Next three characters of the COAR	3-5	XXX
FILLER	Filler	6-108	X(103)

7.1.4 WORKING STORAGE

The following format is used for working storage:

<u>Variable Name</u>	<u>Description</u>	<u>Picture</u>
MINUSS VALUE "-"	Negative Sign	X
INDEXX	Loop Index	9
COUNTER	Counter for the number of files to be processed	99
NOTHING VALUE "000"	Three zero characters	XXX
TEMP-STORAGE1	Absolute value of mandays	9(7)
TEMP-STORAGE2	Absolute value of material expenditures	9(7)
TEMP-STORAGE3	Absolute value of total expenditures	9(7)

7.1.5 OUTPUT

The modified shipyard file is assigned to unit 1 with PICTURE X(108). When an internal counter exceeds the number of files specified on the input card, the number of files as well as the counter, is written to output. The format is the same as that used on unit 7. (See Figure 7.1-1.)

A sample of the output is given in Section 7.1.7.

7.1.6 PROGRAM LISTING

IDENTIFICATION DIVISION.	PRE	10
PROGRAM-ID. FEEDBACK-PREPROCESSER	PRE	20
ENVIRONMENT DIVISION.	PRE	30
CONFIGURATION SECTION.	PRE	40
INPUT-OUTPUT SECTION.	PRE	50
FILE-CONTROL.	PRE	60
SELECT INFILE ASSIGN TO TAPE1-FZ.	PRE	70
SELECT CARDFILE ASSIGN TO INPUT.	PRE	80
SELECT OUTFILE ASSIGN TO TAPE7-FZ.	PRE	90
DATA DIVISION.	PRE	100
FILE SECTION.	PRE	110
FD INFILE	PRE	120
LABEL RECORDS ARE OMITTED	PRE	130
RECORD CONTAINS 100 CHARACTERS	PRE	140
DATA RECORD IS INFILE-REC1 INFILE-REC2.	PRE	150
01 INFILE-REC1.	PRE	160
03 DATA1	PICTURE XX.	PRE 170
03 AVAILABILITY	PICTURE XXX.	PRE 180
03 DATA2	PICTURE X(8).	PRE 190
03 DETAILS	OCCURS 3 TIMES.	PRE 200
05 DATA3	PICTURE XX.	PRE 210
05 MANDAYS1	PICTURE X.	PRE 220
05 MANDAYS2	PICTURE S9(7).	PRE 230
05 MATERIAL1	PICTURE X.	PRE 240
05 MATERIAL2	PICTURE S9(7).	PRE 250
05 TOTAL1	PICTURE X.	PRE 260
05 TOTAL2	PICTURE S9(7).	PRE 270
05 FILLER	PICTURE X(4).	PRE 280
03 DATA4	PICTURE X(5).	PRE 290
01 INFILE-REC2.	PRE	300
03 WORK-CATEG	PICTURE XX.	PRE 310
03 HEAD-AVAILABILITY-IN	PICTURE XXX.	PRE 320
03 FILLER	PICTURE X(103).	PRE 330
FD OUTFILE	PRE	340
LABEL RECORDS ARE OMITTED	PRE	350
RECORD CONTAINS 100 CHARACTERS	PRE	360
DATA RECORD IS OUTFILE-REC.	PRE	370
01 OUTFILE-REC	PICTURE X(100).	PRE 380
FD CARDFILE	PRE	390
LABEL RECORDS ARE OMITTED	PRE	400
RECORD CONTAINS 80 CHARACTERS	PRE	410
DATA RECORD IS CARDFILE-REC.	PRE	420
01 CARDFILE-REC.	PRE	430
03 NUMBER-OF-FILES	PICTURE 99.	PRE 440
03 FILLER	PICTURE X(78).	PRE 450
WORKING-STORAGE SECTION.	PRE	460
01 WORK-AREA1.	PRE	470
03 MINUSS VALUE "--"	PICTURE X.	PRE 480
03 INDEXX	PICTURE 9.	PRE 490
03 COUNTER	PICTURE 99.	PRE 500
03 NOTHING VALUE "000"	PICTURE XXX.	PRE 510
03 TEMP-STORAGE1	PICTURE 9(7).	PRE 520
03 TEMP-STORAGE2	PICTURE 9(7).	PRE 530
03 TEMP-STORAGE3	PICTURE 9(7).	PRE 540
PROCEDURE DIVISION.	PRE	550

INITIALIZATION.	PRE 560
OPEN INPUT INFILE CARDFILE OUTPUT OUTFILE.	PRE 570
READ CARDFILE AT END DISPLAY " NO DATA CARD INPUT "	PRE 580
CLOSE INFILE CARDFILE OUTFILE	PRE 590
STOP RUN.	PRE 600
MOVE 1 TO COUNTER.	PRE 610
CLOSE CARDFILE.	PRE 620
PROCESS-HEADER.	PRE 630
READ INFILE AT END GO TO PARA-FOR-IF-TEST.	PRE 640
WHERE-YOU-WERE.	PRE 650
IF HEAD-AVAILABILITY-IN NOT NUMERIC	PRE 660
DISPLAY WORK-CATEG HEAD-AVAILABILITY-IN " CHANGED TO "	PRE 670
WORK-CATEG NOTHING	PRE 680
MOVE NOTHING TO HEAD-AVAILABILITY-IN.	PRE 690
WRITE OUTFILE-REC FROM INFILE-REC2.	PRE 700
READ-DATA.	PRE 710
READ INFILE AT END DISPLAY " UNEXPECTED END OF FILE "	PRE 720
CLOSE INFILE OUTFILE STOP RUN.	PRE 730
PERFORM SWITCH-SIGN VARYING INDEXX FROM 1 BY 1	PRE 740
UNTIL INDEXX EQUAL 4.	PRE 750
IF AVAILABILITY NOT NUMERIC MOVE NOTHING TO AVAILABILITY.	PRE 760
WRITE OUTFILE-REC FROM INFILE-REC1.	PRE 770
IF MATERIAL2 (3) EQUAL "9999999" GO TO PROCESS-HEADER.	PRE 780
GO TO READ-DATA.	PRE 790
SWITCH-SIGN.	PRE 800
MOVE MANDAYS2 (INDEXX) TO TEMP-STORAGE1.	PRE 810
MOVE MATERIAL2 (INDEXX) TO TEMP-STORAGE2.	PRE 820
MOVE TOTAL2 (INDEXX) TO TEMP-STORAGE3.	PRE 830
IF MANDAYS2 (INDEXX) NEGATIVE	PRE 840
MOVE MINUSS TO MANDAYS1 (INDEXX).	PRE 850
IF MATERIAL2 (INDEXX) NEGATIVE	PRE 860
MOVE MINUSS TO MATERIAL1 (INDEXX).	PRE 870
IF TOTAL2 (INDEXX) NEGATIVE	PRE 880
MOVE MINUSS TO TOTAL1 (INDEXX).	PRE 890
MOVE TEMP-STORAGE1 TO MANDAYS2 (INDEXX).	PRE 900
MOVE TEMP-STORAGE2 TO MATERIAL2 (INDEXX).	PRE 910
MOVE TEMP-STORAGE3 TO TOTAL2 (INDEXX).	PRE 920
PARA-FOR-IF-TEST.	PRE 930
ADD 1 TO COUNTER.	PRE 940
DISPLAY "COUNTER" COUNTER	PRE 950
DISPLAY "NUMBER OF FILES" NUMBER-OF-FILES	PRE 960
IF COUNTER GREATER THAN NUMBER-OF-FILES	PRE 970
CLOSE INFILE OUTFILE STOP RUN.	PRE 980
GO TO WHERE-YOU-WERE.	PRE 990

7.1.7 SAMPLE RUN

A tape file obtained from the Norfolk Naval Shipyard was used for the sample run. The file was generated at 800 BPI, with a blocking factor of 20. Since the tape was not compatible with the NOSBE Operating system of the CDC computers, a system utility routine, COPYBLK, was used to convert the tape to a standard NOSBE tape. A disk file was also made of the information on the tape.

The following control card set-up is used for running COPYBLK:

USER,CN60000,NT1,NT1.	
CHARGE,USER,XXXXXXXXXX.	
VSN(TAPEIN=SLOTNN=L84451)	
REQUEST,TAPEIN,HD,NORING,S,EB.	YARD TAPE IN SLOT NN
VSN(TAPE2=SLOTNN=FDBK)	
LABEL(TAPE2,L=FDBKDATE,W,O=MY,RING)	STANDARD NOSBE TAPE IN SLOT NN
REQUEST,TAPE1,*PF.	
BEGIN,COPYBLK,,20,100,2160,TAPEIN,TAPE1.	COPY YARD TAPE TO DISK
CATALOG,TAPE1,YDDATE,ID=USER,AD=XXXXXXXXXX.	
RENIND,TAPE1.	
COPYSBF,TAPE1,OUTPUT.	
RENIND,TAPE1.	
COPYBF,TAPE1,TAPE2.	COPY TO STANDARD NOSBE TAPE
6/7/8/9 END OF FILE	

The file was subsequently run through the FEEDBACK-PREPROCESSOR program. A partial listing of the resulting file is given here.

Unit 7 (Input) - Shipyard Shop Data File

[illegible]

[illegible]

7.2 PROGRAM FDBK

7.2.1 DESCRIPTION

This program processes shipyard feedback tapes which contain data sorted by COAR. The data can be compiled for individual COAR's or for sets of COAR's; a maximum of ten sets can be input. The SWBS data are grouped into DMPM's.

After the first record of the feedback file is read and the COAR header record is written, a flag is read to determine whether Ship Systems Index (SSI) numbers are on the file. If SSI numbers are used instead of Ship Work Breakdown Structure (SWBS) numbers, the SSI's are converted to the corresponding SWBS's. However, if SWBS numbers are on the file, and a SWBS is read which does not belong to a DMPM, a message is written on the "illegal SWBS" file.

Certain shop numbers may require adjustment. Shop number 68 is combined with shop number 65. Shops 6, 11, 17, 23, 26, 31, 36, 38, 41, 51, 56, 64, 65, 67, 71, 72, 81, 94, and 99 are considered unique shops; all others are combined into shop number 1. These shops may optionally be converted to standard functional shops.

Mandays are accumulated for each shop within a DMPM; material expenditures, total expenditures, and mandays are accumulated for each DMPM.

When a COAR divider record is encountered (MAT(1) = 99999999), the computations are written on intermediate files according to the COAR set to which they belong. When the entire feedback file has been read, each intermediate file is rewound, and the data are read and processed one file at a time. Reports on each COAR set are generated for each DMPM. These reports contain material expenditures, total labor expenditures, total mandays, and the ratio of the DMPM mandays to total mandays.

Other COAR set reports contain the ratio of mandays for each shop to total DMPM mandays, while other reports give the actual mandays for each shop of each DMPM. These shop reports can also be produced for each full job order number instead of for each DMPM. Figure 7.2-1 shows a hierarchical diagram of the FDBK program.

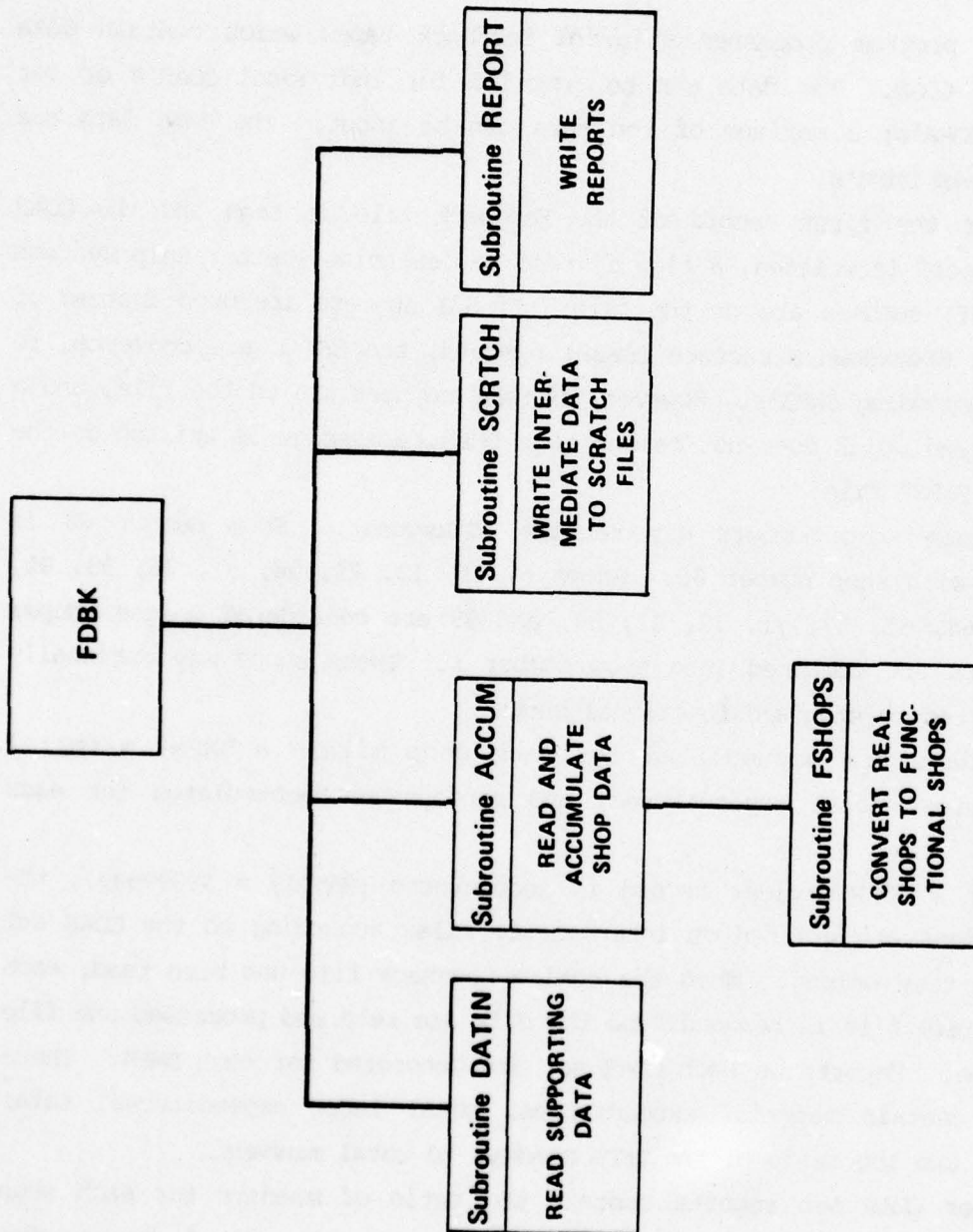


Figure 7.2-1 - Hierarchical Diagram of FDBK

Subroutine DATIN

This routine reads and processes bookkeeping information and program instructions. The user specifies which COAR sets are to be processed. The SSI numbers and the corresponding SWBS numbers are read and stored. The flag IFS, which indicates whether real shops are to be converted to functional shops, is read, and if the conversion option is not desired (IFS = 0), control returns to FDBK. Otherwise, the actual conversion data are read.

Subroutine SCRTCH

This routine writes intermediate shop calculations to scratch files. Each set of COAR calculations is written to the file corresponding to the input set or sets to which the COAR belongs.

Subroutine ACCUM

This routine accumulates intermediate results on manning and expenditures.

The flag denoting that the SSI designation is on the shipyard data file is read before the first COAR for each ship. The COAR header record is read and written to a file containing all header records of COAR's being processed. If all COAR's of the file are to be processed in a combined form, the number of sets of COAR's (NSETC) equals 99.

The COAR divider records are identified by testing whether the material expenditures of the first data segment, MAT(1), are equal to 99999999. COAR's not specified on the input selection cards are bypassed and SWBS numbers are checked. If the SWBS number is not included in the SWBS-to-DMPM conversion, the record is bypassed.

If SSI numbers are on the file, they are converted to SWBS numbers. If the functional shop option is selected (IFS = 1), the conversion routine FSHOPS is called.

Subtotals are calculated for shop and DMPM mandays and for DMPM material and labor expenditures.

Subroutine REPORT

This routine writes three types of reports for each selected set of COAR's: (1) the DMPM profile report, (2) the shop ratio report, and (3) the shop manning report.

Intermediate results are read from the scratch files, units 1-10, and totals are computed for shops and DMPM's for the selected sets of COAR's.

The vectors of the shop ratio report, consisting of the DMPM, the manning ratio for each shop, and the total mandays, may be punched onto cards if the user desires. These vectors can then be used to update the library of repair shop vectors.

Subroutine FSHOPS

This routine converts real shops to functional shops. The mapping varies among the yards and is input as described in Section 7.2.3.1. The actual conversion is performed by multiplying the mandays of a real shop by the proportion which the real shop contributes to a particular functional shop. This result is multiplied by the variable FACT; FACT = 1 when SSI numbers are not encountered or when SSI numbers other than 860 are encountered. When SSI = 860, FACT takes on the values of the proportions that SSI = 860 contributes to SWBS numbers 210, 830, 986, and 992.

7.2.2 RUN SET-UP

The following set-up is used to run the FDBK program on the CDC 6700 computer:

```
USER,CH120000.  
CHARGE,USER,XXXXXXXXXX.  
ATTACH,TAPE13,FEEDBACKFILE,IC=CAAE.  
ATTACH,TAPE15,SSI,ID=CAAE.  
ATTACH,TAPE19,XDMPH,ID=CAAE.  
ATTACH,FDBK,ID=CAAE.  
FDBK.  
REWIND,TAPE14,TAPE16,TAPE17,TAPE18.  
COPYSBF,TAPE14,OUTPUT.  
COPYBF,TAPE16,OUTPUT.  
COPYBF,TAPE17,OUTPUT.  
COPYBF,TAPE18,OUTPUT.  
EXIT.  
REWIND,TAPE14,TAPE16,TAPE17,TAPE18.  
COPYSBF,TAPE14,OUTPUT.  
COPYBF,TAPE16,OUTPUT.  
COPYBF,TAPE17,OUTPUT.  
COPYBF,TAPE18,OUTPUT.  
7/8/9      END OF RECORD
```

FDBK card inputs (unit 11)

```
7/8/9      END OF RECORD  
6/7/6/9    END OF FILE
```

```
SSI-TO-SWBS CONVERSION  
SWBS-TO-DMPH CONVERSION  
OBJECT CODE OF FEEDBACK PROGRAM  
EXECUTE PROGRAM  
  
COAR HEADER RECORDS  
CMPH PROFILE REPORT  
SHMP RATIO REPORT  
SHMP MANNING REPORT  
DUMP FILES AT ABNORMAL TERMINATION
```


7.2.3 INPUT

Card inputs are made using unit 11. The formats for these cards are given in Section 7.2.3.1.

Unit 11 - Card inputs which (1) identify the number of sets of COAR's to be processed and the COAR numbers within each set, (2) set the option flag to convert real shops to functional shops, (3) specify the shop conversion parameters, (4) set the punch option flag, and (5) add a comment in the report headers.

The following additional units are used to input information from disk files:

Unit 13 - Shop data from shipyards

Unit 15 - SSI-to-SWBS conversion

Unit 19 - SWBS-to-DMPM conversion

The format for these files is given in Sections 7.2.3.2 through 7.2.3.4.

7.2.3.1 Unit 11 - Card Input

Eight card types are input to FDBK. The formats for these card types are as follows:

Card Type 1

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NSETC	Number of sets of COAR's; all COAR's from the file are combined if NSETC = 99	1-2	I2

Card Type 2. This card is repeated NSETC times.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NCK	Number of COAR's in a set	1-2	I2
KOARS	COAR numbers within a set; there will be NCK of these numbers	3-52	10I5

Card Type 3

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IFS	Functional shop conversion flag	1-2	I2

Card Type 4

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NRLSHP	Number of real shops to con- vert to functional shops	1-2	I2

Card Type 5. This card is repeated NRLSHP times.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
KRLSHP	Number of a particular real shop to be converted	1-3	I3
NF	Number of functional shops KRLSHP is being mapped into	4-6	I3
KFNSHP	Functional shop numbers being mapped into	7-66*	I3
PERFS	Percent of real shop mapped into functional shop		F3.2

*There will be NF pairs of these variables.

Card Type 6

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPUN	Punch option flag	1-2	I2

Card Type 7

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
ISSFL	SSI conversion flag	3-4	I2

Card Type 8. This card type is repeated for each COAR set.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
COM	Comment in report headers	1-80	20A4

7.2.3.2 Unit 13 - Shipyard Shop Data File

Data on completed shipyard work are grouped into bookkeeping units called COAR's (Customer Order Acceptance Records). These data are obtained from each yard and stored on the disk. The file organization is shown in Figure 7.1-1.

The format for each record is as follows:

COAR Header Record

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
HEADER	COAR	1-5	I5
HEADER	Ship type	14-17	A4
HEADER	Hull number	18-21	I4
HEADER	Ship name	23-34	3A4
HEADER	Type availability	36-37	A2
HEADER	Start date	38-43	3I2
HEADER	Completion date	45-50	3I2
HEADER	Funds authorized	52-61	I10
*HEADER(17-19) or DATE(1-3)	Date of File	63-68	3A2
HEADER	Appropriation/subhead	70-82	3A4,A1
*HEADER(24-25) or YD(1-2)	Shipyard	85-90	A2,A4
HEADER	Sequence number	104-108	I5

*The file date and shipyard name are the only data items from this record which are specifically used by the program. The whole record is read with the variable name HEADER. Values for HEADER(17-19) are placed into the variable DATE(1-3) and for HEADER(24-25) into the variable YD(1-2).

Shop Data Record

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
COAR	COAR number	1-5	I5
SWBS	SWBS number	6-8	I3
JO	Information for job order number	9-10	A2
NSEG	Number of data segments for this record; maximum of three	12	I1
ISHOP	Shop number	14-103*	I2
MD	Mandays		I8
MAT	Material expenditures		I8
IDOL	Labor expenditures		I8,4X
NSEQ	Sequence number	104-108	I5

*Repeated NSEG times.

COAR Divider Record**

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Not applicable	COAR number	1-5	I5
Not applicable	Record of all 9's	6-103	98I1
Not applicable	Sequence number	104-108	I5

End-of-Data Record**

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
Not applicable	Record of all 9's	1-108	108I1

**The COAR Divider Record and the End-of-Data Record are read with the same formats and variable names as the shop record. The program identifies a divider or end record by the presence of the 9's.

7.2.3.3 Unit 15 - SSI-to-SWBS Conversion File

This file sets up a mapping of SSI numbers to SWBS numbers. SSI, the Ship Systems Index of bookkeeping, is a modified version of the BUSHIPS Consolidated Index and was developed by Portsmouth Naval Shipyard for submarines. The correspondence of SSI and SWBS numbers is one-to-one except for SSI #860. In this case 31%, 35%, 18.5%, and 15.5% of the value in 860 are mapped into SWBS numbers 210, 830, 986, and 992, respectively. The format for this file is as follows:

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
SSI	SSI number	1-3	I3
SWBS	SWBS number corresponding to SSI	10-12	I3

This format is repeated for each SSI.

7.2.3.4 Unit 19 - SWBS-to-DMPM Conversion File

This file sets up a mapping between Ship Work Breakdown Structure (SWBS) numbers and Depot Maintenance Planning Module (DMPM) numbers.

Record Type 1

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
NGRPS	Number of depot maintenance planning modules	1-2	I2

Record Type 2. This record is repeated NGRPS times.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM	DMPM number	1-4	I4
KSWBS	Lower boundary for the range of SWBS numbers corresponding to IPM		I3
JSWBS	Upper boundary for the range of SWBS numbers corresponding to IPM	7-78	I3

7.2.4 OUTPUT

7.2.4.1 Hard-Copy Output

The following units are used by FDBK for generating hard copy:

- Unit 12 - Illegal SWBS numbers
- Unit 14 - COAR header records
- Unit 16 - Material expenditures, total expenditures, mandays, and percent of manday total for each DMPM (DMPM Profile Report)
- Unit 17 - Ratio of mandays of each shop to total mandays for each DMPM (Shop Ratio Report)
- Unit 18 - Mandays per shop for each DMPM (Shop Manning Report)

Section 7.2.7 gives samples of these outputs.

Additionally, units 1-10 are used as scratch files to store intermediate calculations.

The program also provides card output. The formats of these cards are described in Section 7.2.4.2.

7.2.4.2 Card Output

The following card is optional and may be punched for each DMPM to produce planning module profiles.

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM(ISG)	DMPM	1-4	I4
MDSUM(ISG)	Mandays	5-14	I10
PER	Percent of total	15-24	F10.4

The following cards are optional and may be punched for each DMPM to produce shop ratios.

Card Type 1

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM(ISG)	DMPM	1-4	I4
PERSHP(1-10)	Shop ratio	5-44	10F4.3

Card Type 2

<u>Variable Name</u>	<u>Description</u>	<u>Field</u>	<u>Format</u>
IPM(ISG)	DMPM	1-4	I4
PERSHP(11-20)	Shop ratio	5-44	10F4.3
MDSUM(ISG)	DMPM manday total	45-54	I10

7.2.5 PROGRAM LISTING

```

PROGRAM FDBK(INPUT,OUTPUT,TAPE1,TAPE2,TAPE3,TAPE4,TAPE5,TAPE6, FDBK 10
$ TAPE7,TAPE8,TAPE9,TAPE10,TAPE11=INPUT,TAPE12=OUTPUT,TAPE13, FDBK 20
$ TAPE14,TAPE15,TAPE16,TAPE17,TAPE18,TAPE19) FDBK 30
C - - - MICHAEL LANATRICE DTNSROC (1/76) FDBK 40
C - - - THIS PROGRAM GENERATES A DMPH PROFILE REPORT OF MATERIAL $, FDBK 50
C - - - LABOR $, MANDAYS, AND THE RATIO OF INDIVIDUAL DMPH MANDAYS TO FDBK 60
C - - - TOTAL MANDAYS FOR SELECTED SETS OF COARS. FDBK 70
C - - - THE SHOP RATIO REPORT DISPLAYS THE PROPORTION OF EACH SHOP TO FDBK 80
C - - - THE DMPH TOTAL. FDBK 90
C - - - PUNCHED CARDS MAY BE OBTAINED FROM THE SHOP RATIO REPORT TO FDBK 100
C - - - BE USED AS INPUT TO LATER PROGRAMS. FDBK 110
C - - - THE SHOP MANNING REPORT TABULATES THE NUMBER OF MANDAYS FOR FDBK 120
C - - - EACH SHOP AND DMPH. REAL OR FUNCTIONAL SHOPS MAY BE OBTAINED. FDBK 130
C - - - INPUT FILES FDBK 140
C - - - TAPE1-TAPE10 SCRATCH FILES FOR COAR SETS FDBK 150
C - - - TAPE11 CARD INPUT * FDBK 160
C - - - TAPE13 SHOPS YARD DATA FDBK 170
C - - - TAPE15 SSI-TO-SWBS CONVERSION FDBK 180
C - - - TAPE19 SWBS-TO-DMPH CONVERSION FDBK 190
C FDBK 200
C - - - * CARD INPUT FDBK 210
C - - - CARD VARIABLE DEFINITION FORMAT FDBK 220
C - - - 1 NSETC NO. OF SETS OF COARS I2 FDBK 230
C - - - 2 NCK NO. OF COARS IN THIS SET I2 FDBK 240
C - - - KOARS COAR NUMBERS IN THIS SET 10I5 FDBK 250
C - - - 3 IFS FUNCTIONAL SHOP FLAG I2 FDBK 260
C - - - 4 NRLSHP NO. OF REAL SHOPS TO CONVERT I2 FDBK 270
C - - - TO FUNCTIONAL SHOPS I2 FDBK 280
C - - - 5 * KRLSHP NO. OF REAL SHOP TO BE CONVERTED I3 FDBK 290
C - - - NF NO. OF FUNCTIONAL SHOPS BEING FDBK 300
C - - - MAPPED INTO I3 FDBK 310
C - - - KFLSHP FUNCTIONAL SHOP NOS. FDBK 320
C - - - PERFS PERCENT OF REAL SHOP MAPPED FDBK 330
C - - - INTO FUNCTIONAL 10(I3,F3.2) FDBK 340
C - - - 6 IPUN PUNCH FLAG I2 FDBK 350
C - - - 7 ISSFL SSI FLAG I2 FDBK 360
C - - - 8 COM COMMENT IN REPORT HEADER 20A4 FDBK 370
C - - - * REPEAT CARD 5 NRLSHP TIMES FDBK 380
C FDBK 390
C - - - FLAGS SHOULD BE SET TO ZERO IF THE OPTION IS NOT DESIRED. FDBK 400
C - - - OTHERWISE, IT IS SET TO ONE. FDBK 410
C - - - IF IFS=0, CARDS 4 AND 5 SHOULD BE OMITTED FDBK 420
C FDBK 430
C - - - OUTPUT FILES FDBK 440
C - - - TAPE1-TAPE10 SCRATCH FILES FOR COAR SETS FDBK 450
C - - - TAPE12 ILLEGAL SWBS FDBK 460
C - - - TAPE14 COAR HEADER RECORDS FDBK 470
C - - - TAPE16 DMPH PROFILE REPORT FDBK 480
C - - - TAPE17 SHOP RATIO REPORT FDBK 490
C - - - TAPE18 SHOP MANNING REPORT FDBK 500
COMMON /ONE/ ISN(1000),NSETC,NC(10),KOARS(10,10),NCRPS,IPN(100), FDBK 510
$ MPN(1000),IC,LOOP,NSHOP(20),IREP FDBK 520
COMMON/TWO/ NOTOT(20,100),MATSWB(100),IDLSWB(100),NDSWB(100) FDBK 530
DATA NSHOP/1,6,11,17,23,26,31,36,38,41,51,56,64, FDBK 540
$ 65,67,71,72,81,94,99/ FDBK 550

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	CALL ERRSET(NER,99)	FDBK 560
C - -	- READ COAR SETS AND DMPMS	FDBK 570
	CALL DATIN	FDBK 580
C - -	- INITIALIZE FLAGS, COUNTERS, AND ADDERS	FDBK 590
	LOOP=0	FDBK 600
	IREP=0	FDBK 610
3	DO 201 I=1,NGRPS	FDBK 620
	DO 200 J=1,20	FDBK 630
200	MDTOT(J,I)=0	FDBK 640
	MATSWB(I)=0	FDBK 650
	IOLSWB(I)=0	FDBK 660
201	MDSWB(I)=0	FDBK 670
C - -	- ACCUMULATE INTERMEDIATE RESULTS	FDBK 680
	CALL ACCUM	FDBK 690
	IF(NSETC.EQ.99) CALL SCRATCH	FDBK 700
	IF(IREP.EQ.1) GO TO 4	FDBK 710
C - -	- WRITE INTERMEDIATE RESULTS TO SCRATCH FILES	FDBK 720
	CALL SCRATCH	FDBK 730
	GO TO 3	FDBK 740
C - -	- WRITE REPORTS	FDBK 750
4	CALL REPORT	FDBK 760
	STOP	FDBK 770
	END	FDBK 780

	SUBROUTINE ACCUM	FDBK 790
C - - -	THIS ROUTINE ACCUMULATES INTERMEDIATE RESULTS ON HANNING	FDBK 800
C - - -	AND EXPENDITURES	FDBK 810
	COMMON /ONE/ ISN(1000), NSETC, NC(10), KOARS(10,10), NGRPS, IPN(100),	FDBK 820
	\$ MPN(1000), IC, LOOP, NSHOP(20), IREP	FDBK 830
	COMMON /TWO/ MOTOT(20,100), NATSWB(100), IDLSWB(100), NDSWB(100)	FDBK 840
	COMMON /THREE/ YD(2), DATE(3), IPUN	FDBK 850
	COMMON /FOUR/ IFS, KFNSHP(20,10), PERFS(20,10), KRLSHP(20), NFS(20)	FDBK 860
	\$,FACT, NRLSHP, LSHOP(20), NSEG, ISG	FDBK 870
	COMMON /FIVE/ IDOL(3), ISHOP(3), MAT(3), MD(3)	FDBK 880
	DIMENSION HEADER(30), FAC(4), IFAC(4)	FDBK 890
	INTEGER SWBS, COAR	FDBK 900
	DATA FAC/.31,.35,.105,.155/, IFAC/210,830,986,992/	FDBK 910
	READ(13,5) HEADER	FDBK 920
5	FORMAT(15A4,4A2,4A4,A2,A4,A2,4A4)	FDBK 930
	IF(EOF(13).NE.0) GO TO 300	FDBK 940
	DATE(1)=HEADER(18)	FDBK 950
	DATE(2)=HEADER(19)	FDBK 960
	DATE(3)=HEADER(17)	FDBK 970
	YD(1)=HEADER(24)	FDBK 980
	YD(2)=HEADER(25)	FDBK 990
6	WRITE(14,5) HEADER	FDBK1000
	IF(LOOP.NE.0) GO TO 8	FDBK1010
C - - -	WRITE SHIP INFO FROM FIRST COAR HEADER	FDBK1020
	LOOP=1	FDBK1030
C - - -	READ SSI FLAG	FDBK1040
	READ(11,7) ISSFL	FDBK1050
7	FORMAT(I1)	FDBK1060
C - - -	READ SHOPS DATA	FDBK1070
8	READ(13,10) COAR, SWBS, JO, NSEG, (ISHOP(J), MD(J), MAT(J), IDOL(J), J=1,	FDBK1080
	\$ 3), NSEQ	FDBK1090
10	FORMAT(I5, I3,A2,1X,I1,1X,3(I2,3I0,4X),I5)	FDBK1100
	IF(EOF(13).NE.0) GO TO 300	FDBK1110
C - - -	BRANCH FOR PROCESSING ALL COARS COMBINED	FDBK1120
	IF(NSETC.NE.99) GO TO 15	FDBK1130
	IF(MAT(1).NE.99999999) GO TO 60	FDBK1140
	READ(13,5) HEADER	FDBK1150
	IF(EOF(13).NE.0) GO TO 300	FDBK1160
	WRITE(14,5) HEADER	FDBK1170
	GO TO 8	FDBK1180
C - - -	COAR COMPLETED	FDBK1190
15	IF(MAT(1).EQ.99999999) RETURN	FDBK1200
C - - -	BYPASS COARS NOT SPECIFIED ON INPUT CARDS	FDBK1210
	DO 50 IK=1,NSETC	FDBK1220
	NCIK=NC(IK)	FDBK1230
	DO 50 IJ=1,NCIK	FDBK1240
	IF(COAR.NE.KOARS(IK,IJ)) GO TO 50	FDBK1250
	GO TO 60	FDBK1260
50	CONTINUE	FDBK1270
	GO TO 8	FDBK1280
60	CONTINUE	FDBK1290
C - - -	CHECK SWBS NUMBERS	FDBK1300
	IF(ISSFL.NE.0) GO TO 12	FDBK1310
	IF(MPN(SWBS).NE.0) GO TO 12	FDBK1320
	WRITE(12,13) SWBS, COAR, JO, NSEG, (ISHOP(J), MD(J), MAT(J), IDOL(J), J=1,	FDBK1330
	\$ 3), NSEQ	FDBK1340
13	FORMAT(* ILLEGAL SWBS*, I4,I6,A2,1X,I1,1X,3(I2,3I0,4X),I5)	FDBK1350
	GO TO 8	FDBK1360
C - - -	CONVERT SSI TO SWBS	FDBK1370

12	I860=0	F08K1380
	FACT=1.	F08K1390
	IF(ISSFL.NE.1) GO TO 80	F08K1400
	IF(SWBS.NE.860) GO TO 75	F08K1410
	I860=1	F08K1420
70	FACT=FAC(I860)	F08K1430
	SWBS=IFAC(I860)	F08K1440
	GO TO 80	F08K1450
75	IF(ISW(SWBS).NE.0) GO TO 76	F08K1460
76	SWBS=ISW(SWBS)	F08K1470
C - -	- DETERMINE ONPM TO WHICH THIS SWBS BELONGS	F08K1480
80	ISG=ONPM(SWBS)	F08K1490
C - -	- ADJUST REAL SHOP NUMBERS	F08K1500
	IF(IFS.NE.1) GO TO 24	F08K1510
C - -	- PROCESS FUNCTIONAL SHOPS	F08K1520
	CALL FSHOPS	F08K1530
	GO TO 45	F08K1540
24	DO 40 I=1,NSEG	F08K1550
	IF(ISHOP(I).NE.60) GO TO 25	F08K1560
	LSHOP(I)=14	F08K1570
	GO TO 35	F08K1580
25	DO 30 J=1,20	F08K1590
	IF(ISHOP(I).NE.WSHOP(J)) GO TO 30	F08K1600
	LSHOP(I)=J	F08K1610
	GO TO 35	F08K1620
30	CONTINUE	F08K1630
	LSHOP(I)=1	F08K1640
C - -	- ACCUMULATE SHOP SUBTOTALS FOR ONPMS	F08K1650
35	IF(MD(I).LT.0) MD(I)=0	F08K1660
	IF(MAT(I).LT.0) MAT(I)=0	F08K1670
	IF(IDOL(I).LT.0) IDOL(I)=0	F08K1680
	MDTOT(LSHOP(I),ISG)=MDTOT(LSHOP(I),ISG)+MD(I)*FACT	F08K1690
C - -	- ACCUMULATE ONPM TOTALS	F08K1700
	MATSWB(ISG)=MATSWB(ISG)+MAT(I)*FACT	F08K1710
	IDLSWB(ISG)=IDLSWB(ISG)+IDOL(I)*FACT	F08K1720
	MDSWB(ISG)=MDSWB(ISG)+MD(I)*FACT	F08K1730
40	CONTINUE	F08K1740
45	IC=COAR	F08K1750
	IF(I860.EQ.0) GO TO 8	F08K1760
	I860=I860+1	F08K1770
	IF(I860.LT.4) GO TO 70	F08K1780
	GO TO 8	F08K1790
300	IREF=1	F08K1800
	RETURN	F08K1810
	END	F08K1820

SUBROUTINE DATIN		F08K1830
C - -	THIS ROUTINE MAPS SSI TO SWBS, READS SETS OF COARS TO BE	F08K1840
C - -	PROCESSED, AND MAPS SWBS TO ONPMS	F08K1850
	COMMON /ONE/ ISW(1000),NSETC,NC(10),KOARS(10,10),NGRPS,IPM(100),	F08K1860
	\$ MPH(1000),IC,LOOP,NSHOP(20),IREP	F08K1870
	COMMON/TWO/ MDOT(20,100),MATSWB(100),IDLSWB(100),MOSWB(100)	F08K1880
	COMMON /THREE/ YD(2),DATE(3),IPUM	F08K1890
	COMMON/FOUR/IFS,KFNSHP(20,10),PERFS(20,10),KRLSHP(20),NFS(20)	F08K1900
	\$,FACT,NRLSHP,LSHOP(20),NSEG,ISG	F08K1910
	DIMENSION KSWBS(100,9),JSWBS(100,9)	F08K1920
C - -	READ SSI-TO-SWBS MAPPING	F08K1930
	DO 206 IS=1,1000	F08K1940
	READ(15,205) JSSI,ISW(JSSI)	F08K1950
205	FORMAT(I3,6X,I3)	F08K1960
	IF(EOF(15))207,206	F08K1970
206	CONTINUE	F08K1980
C - -	READ COAR SETS	F08K1990
207	READ(11,210)NSETC	F08K2000
	IF(NSETC.EQ.99) NC(1)=999	F08K2010
	IF(NSETC.EQ.99) GO TO 216	F08K2020
	DO 215 K=1,NSETC	F08K2030
	READ(11,210) NCK, (KOARS(K,J) ,J=1,NCK)	F08K2040
210	FORMAT(I2,10(I5))	F08K2050
	NC(K)=NCK	F08K2060
215	CONTINUE	F08K2070
C - -	READ SWBS GROUPS FOR EACH ONPM	F08K2080
216	READ(19,210) NGRPS	F08K2090
	DO 225 K=1,NGRPS	F08K2100
	READ(19,220) IPM(K),(KSWBS(K,J),JSWBS(K,J),J=1,9)	F08K2110
220	FORMAT(I4,2X,10(I3,1X))	F08K2120
	DO 224 J=1,9	F08K2130
	KJ=KSWBS(K,J)	F08K2140
	IF(KJ.EQ.0) GO TO 225	F08K2150
	JJ=JSWBS(K,J)	F08K2160
	DO 223 NSWB=KJ,JJ	F08K2170
223	MPM(NSWB)=K	F08K2180
224	CONTINUE	F08K2190
225	CONTINUE	F08K2200
C - -	READ FUNCTIONAL SHOP CONVERSION	F08K2210
	READ(11,210) IFS	F08K2220
	IF(IFS.NE.1) GO TO 240	F08K2230
	READ(11,210) NRLSHP	F08K2240
	DO 230 IRS=1,NRLSHP	F08K2250
	READ(11,235)KRLSHP(IRS),NF,(KFNSHP(IRS,JFS),PERFS(IRS,JFS),JFS=1,NF)	F08K2260
	\$ F)	F08K2270
235	FORMAT(2I3,10(I3,F3.2))	F08K2280
230	NFS(IRS)=NF	F08K2290
240	READ(11,210) IPUM	F08K2300
	RETURN	F08K2310
	END	F08K2320

	SUBROUTINE FSHOP	F0BK2330
C - -	- THIS ROUTINE CONVERTS REAL SHOPS TO FUNCTIONAL SHOPS	F0BK2340
	COMMON /ONE/ ISW(1000), NSETC, NC(10), KOARS(10,10), NGRPS, IPH(100),	F0BK2350
	\$ MPH(1000), IC, LOOP, NSHOP(20), IREP	F0BK2360
	COMMON /TWO/ MOTOT(20,100), MATSWB(100), IDLSWB(100), MOSWB(100)	F0BK2370
	COMMON /FOUR/ IFS, KFNSHP(20,10), PERFS(20,10), KRLSHP(20), NFS(20)	F0BK2380
	\$,FACT, NRLSHP, LSHOP(20), NSEG, ISG	F0BK2390
	COMMON /FIVE/ IDOL(3), ISHOP(3), MAT(3), MD(3)	F0BK2400
C - -	- LOOP ON NUMBER OF DATA SEGMENTS IN THIS RECORD	F0BK2410
	DO 41 I=1, NSEG	F0BK2420
	IF(ISHOP(I).NE.68) GO TO 25	F0BK2430
C - -	- PUT SHOP 68 DATA INTO SHOP 65	F0BK2440
	LSHOP(I)=14	F0BK2450
	GO TO 31	F0BK2460
C - -	- DETERMINE IF CURRENT SHOP CONTRIBUTES TO OTHER SHOPS	F0BK2470
25	DO 30 J=1,20	F0BK2480
	IF(ISHOP(I).NE.NSHOP(J)) GO TO 31	F0BK2490
30	CONTINUE	F0BK2500
31	DO 33 IRS=1, NRLSHP	F0BK2510
	IF(ISHOP(I).EQ.KRLSHP(IRS)) GO TO 35	F0BK2520
33	CONTINUE	F0BK2530
C - -	- THIS SHOP MAPS 100 PER CENT ONTO ITSELF	F0BK2540
	MOTOT(KFNSHP(IRS,JFS),ISG)=MOTOT(KFNSHP(IRS,JFS),ISG)+MD(I)*FACT	F0BK2550
	GO TO 39	F0BK2560
35	NF=NFS(IRS)	F0BK2570
C - -	- LOOP ON NUMBER OF SHOPS BEING MAPPED INTO	F0BK2580
	DO 40 JFS=1,NF	F0BK2590
40	MOTOT(KFNSHP(IRS,JFS),ISG)=MOTOT(KFNSHP(IRS,JFS),ISG)+MD(I)*FACT	F0BK2600
	\$ *PERFS(IRS,JFS)	F0BK2610
39	MATSWB(ISG)=MATSWB(ISG)+MAT(I)*FACT	F0BK2620
	IDLSWB(ISG)=IDLSWB(ISG)+IDOL(I)*FACT	F0BK2630
	MOSWB(ISG)=MOSWB(ISG)+MD(I)*FACT	F0BK2640
41	CONTINUE	F0BK2650
	RETURN	F0BK2660
	END	F0BK2670

SUBROUTINE REPORT		F0RK2680
C - -	THIS ROUTINE WRITES THREE TYPES OF REPORTS FOR EACH	F0RK2690
C - -	SELECTED SET OF COARS	F0RK2700
	COMMON /ONE/ ISW(1000),NSETC,NC(10),KOARS(10,10),NGRPS,IPM(100),	F0RK2710
	\$ MPH(1000),IC,LOOP,NSHOP(20),IREP	F0RK2720
	COMMON/TWO/ MOTOT(20,100),NATSWB(100),IOLSWB(100),NOSWB(100)	F0RK2730
	COMMON /THREE/ YD(2),DATE(3),IPUM	F0RK2740
	DIMENSION YARD(8),COM(20),	F0RK2750
	\$ NATSUM(100),IOLSUM(100),NOSUM(100),NOSHP(20,100),PERSHP(20)	F0RK2760
	DATA YARD/2MCH,2MLB,2MHA,2MNO,2MPE,2MPH,2MPT,2HPU/	F0RK2770
C - -	SUM SHOPS FOR EACH SWBS GROUP	F0RK2780
C - -	COMPUTE PERCENTS AND TOTALS	F0RK2790
C - -	DETERMINE YARD FROM WHICH DATA WAS EXTRACTED	F0RK2800
	DO 10 I=1,9	F0RK2810
	IV=I	F0RK2820
	IF(YD(1).EQ.YARD(I)) GO TO 20	F0RK2830
10	CONTINUE	F0RK2840
20	IYDNO=IV	F0RK2850
300	DO 360 IFL=1,NSETC	F0RK2860
	REWIND IFL	F0RK2870
	NC=NC(IFL)	F0RK2880
	IF(NCF.EQ.0) GO TO 360	F0RK2890
C - -	INITIALIZE ADDERS	F0RK2900
	NMAT=0	F0RK2910
	NMO=0	F0RK2920
	NMD=0	F0RK2930
	DO 361 ISG=1,100	F0RK2940
	DO 362 LSM=1,20	F0RK2950
362	NOSHP(LSM,ISG)=0	F0RK2960
	NATSUM(ISG)=0	F0RK2970
	IOLSUM(ISG)=0	F0RK2980
361	NOSUM(ISG)=0	F0RK2990
	DO 30 J=16,18	F0RK3000
	NREP=J-15	F0RK3010
C - -	WRITE REPORT HEADINGS	F0RK3020
	WRITE(J,35) IYDNO,NREP,DATE,YD	F0RK3030
35	FORMAT(*1 REPORT: 63-0*,I1,*-*,I1/	F0RK3040
	\$ 2X,*DATE: *,A2,2(*/*,A2), 5X,*YARD: *,A2,A4,/))	F0RK3050
30	CONTINUE	F0RK3060
	READ(I1,5) COM	F0RK3070
5	FORMAT(20A4)	F0RK3080
	DO 60 J=16,18	F0RK3090
	WRITE(J,55) COM	F0RK3100
55	FORMAT(2X,20A4,/))	F0RK3110
60	CONTINUE	F0RK3120
	WRITE(16,40)	F0RK3130
40	FORMAT(40X,*DMPH PROFILE REPORT*,/,40X,19(1H-),/))	F0RK3140
	WRITE(17,45)	F0RK3150
45	FORMAT(40X,*SHOP RATIO REPORT*,15X,	F0RK3160
	\$ *(SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH ONE	F0RK3170
	SPM)*,/,40X,17(1H-),/))	F0RK3180
	WRITE(18,50)	F0RK3190
50	FORMAT(40X,*SHOP MANNING REPORT*,15X,*(SHOP ENTRIES ARE MAN DAYS)*	F0RK3200
	\$,/,40X,19(1H-),/))	F0RK3210
	WRITE(16,305) (KOARS(IFL,J),J=1,10)	F0RK3220
305	FORMAT(* COARS *, 10I6 // * DMPH *,10X,* MATERIAL S* ,	F0RK3230
	\$ 6X,* LABOR S*,13X,* MAN DAYS*,10X,	F0RK3240
	\$ * DMPH M.D./TOTAL M.D.*,/))	F0RK3250
	WRITE(17,335) (KOARS(IFL,J), J=1,10),NSHOP	F0RK3260


```

335 FORMAT(* COARS *, 10I6      /** DMPH\SHOP*,3X,2015,* TOT MD*,/) F0BK3270
WRITE(18,336) (K0APS(IFL,J ), J=1,10 ),NSHOP F0BK3280
336 FORMAT(* COARS *, 10I6      /** DMPH\SHOP*, 2016,* TOT MD*,/) F0BK3290
DO 350 IJ=1,NCF F0BK3300
C - - - READ INTERMEDIATE RESULTS FROM SCRATCH FILES F0BK3310
READ(IFL,110)((MDTOT(L1,L2),L1=1,20),L2=1,100),MATSW9,IDLSWB,MDSWB F0BK3320
110 FORMAT(10I4) F0BK3330
IF(E0F(IFL).NE.0) GO TO 355 F0BK3340
C - - - COMPUTE TOTALS FOR SHOPS AND DMPHS F0BK3350
DO 310 ISG=1,NGRPS F0BK3360
DO 309 LSH=1,20 F0BK3370
309 MDSP(LSH,ISG)=MDSP(LSH,ISG)+MDTOT(LSH,ISG) F0BK3380
MATSUM(ISG)=MATSUM(ISG)+MATSWB(ISG) F0BK3390
IDLSUM(ISG)=IDLSUM(ISG)+IDLSWB(ISG) F0BK3400
310 MDSUM(ISG)=MDSUM(ISG)+MDSWB(ISG) F0BK3410
350 CONTINUE F0BK3420
C - - - COMPUTE TOTALS FOR SELECTED COAR SETS F0BK3430
355 DO 311 ISG=1,NGRPS F0BK3440
NMAT=NMAT+MATSUM(ISG) F0BK3450
NOOL=NOOL+IDLSUM(ISG) F0BK3460
311 NMD=NMD+MDSUM(ISG) F0BK3470
DO 330 ISG=1,NGRPS F0BK3480
C - - - COMPUTE MANNING RATIOS FOR DMPHS F0BK3490
PER=FLOAT(MDSUM(ISG))/FLOAT(NMD) F0BK3500
IF(IPM(ISG).NE.5001) GO TO 315 F0BK3510
WRITE(16,312) F0BK3520
312 FORMAT(1H1) F0BK3530
WRITE(16,314) F0BK3540
314 FORMAT( /** DMPH*,10X,* MATERIAL $*, F0BK3550
$ 6X,* LAROR $*,13X,* MAN DAYS*,10X, F0BK3560
$ * DMPH M.D./TOTAL M.D.*,/) F0BK3570
315 CONTINUE F0BK3580
WRITE(16,320) IPM(ISG),MATSUM(ISG),IDLSUM(ISG),MDSUM(ISG),PER F0BK3590
320 FORMAT(I5,10X,I4,10X,I7,10X,I10,10X,F17.3) F0BK3600
IF(IPM.NE.1) GO TO 330 F0BK3610
PUNCH 325, IPM(ISG),MDSUM(ISG),PER F0BK3620
325 FORMAT(I4,I10,F10.4) F0BK3630
330 CONTINUE F0BK3640
WRITE(16,331) NMAT,NOOL,NMD F0BK3650
331 FORMAT(/* TOTAL*,7X,I10,7X,I10,10X,I10) F0BK3660
DO 345 ISG=1,NGRPS F0BK3670
DO 338 LSH=1,20 F0BK3680
IF(MDSUM(ISG).NE.0) GO TO 337 F0BK3690
PERSHP(LSH)=0 F0BK3700
GO TO 338 F0BK3710
C - - - COMPUTE SHOP MANNING RATIOS FOR DMPHS F0BK3720
337 PERSHP(LSH)=FLOAT(MDSP(LSH,ISG))/FLOAT(MDSUM(ISG)) F0BK3730
338 CONTINUE F0BK3740
IF(IPM(ISG).NE.5001) GO TO 339 F0BK3750
WRITE(17,312) F0BK3760
WRITE(17,329) NSHOP F0BK3770
329 FORMAT( /** DMPH\SHOP*,3X,2015,* TOT MD*,/) F0BK3780
WRITE(18,312) F0BK3790
WRITE(18,343) NSHOP F0BK3800
343 FORMAT( /** DMPH\SHOP*, 2016,* TOT MD*,/) F0BK3810
339 CONTINUE F0BK3820
WRITE(17,340) IPM(ISG),PERSHP,MDSUM(ISG) F0BK3830
340 FORMAT(I5,8X,20(1X,F4.3),I7) F0BK3840
WRITE(18,341) IPM(ISG),(MDSP(LSH,ISG),LSH=1,20),MDSUM(ISG) F0BK3850
341 FORMAT(I5,5X,20I6,I7) F0BK3860

```

	IF(IPUN.NE.1) GO TO 345	FORK3878
	PUNCH 342, IPH(ISC), (PERSHP(N), N=1,10), IPH(ISC), (PERSHP(N), N=11,20)	FORK3880
	, NDSUM(ISC)	FORK3890
342	FORMAT(I4,10F4.3/I4,10F4.3,I10)	FORK3900
345	CONTINUE	FORK3910
	IF(NSETC.EQ.99) RETURN	FORK3920
360	CONTINUE	FORK3930
	RETURN	FORK3940
	END	FORK3950

	SUBROUTINE SCRATCH	FORK3960
C - - -	THIS ROUTINE WRITES INTERMEDIATE RESULTS ON APPROPRIATE	FORK3970
C - - -	SCRATCH FILES	FORK3980
	COMMON /ONE/ ISH(1000), NSETC, NC(10), KOARS(10,10), NGRPS, IPH(100),	FORK3990
	NPH(1000), IC, LOOP, NSHOP(20), IREP	FORK4000
	COMMON/TWO/ MOTOT(20,100), TSWR(100), IOLSWR(100), NDSWR(100)	FORK4010
	IF(NSETC.NE.99) GO TO 100	FORK4020
	WRITE(1,110) ((MOTOT(L1,L2), L1=1,20), L2=1,100), MATSWR, IOLSWR, NDSWR	FORK4030
	RETURN	FORK4040
C - - -	DETERMINE SETS TO WHICH THIS COAR BELONGS	FORK4050
100	DO 150 IK=1, NSFTC	FORK4060
	NCIK=NC(IK)	FORK4070
	DO 140 IJ=1, NCIK	FORK4080
	IF(IC.NE.KOARS(IK,IJ)) GO TO 140	FORK4090
C - - -	WRITE SCRATCH FILES FOR STORING COAR SETS	FORK4100
	WRITE(IK,110) ((MOTOT(L1,L2), L1=1,20), L2=1,100), MATSWR, IOLSWR, NDSWR	FORK4110
110	FORMAT(10I8)	FORK4120
	GO TO 150	FORK4130
140	CONTINUE	FORK4140
150	CONTINUE	FORK4150
	RETURN	FORK4160
	END	FORK4170

7.2.6 GLOSSARY

COMMON VARIABLES

Common Block /ONE/

IC	Integer form of COAR number.
IMP(100)	Depot Maintenance Planning Module number.
IREP	Flag set to "1" after the program writes the first report, otherwise it is "0".
ISW(100)	SWBS array corresponding to SSI.
KOARS(10,10)	Array of COAR numbers within a set.
LOOP	Flag denoting first COAR for a ship.
MPM(1000)	Array of DMPM's corresponding to the SWBS numbers.
NC(10)	Array of the number of COAR's in a set.
NGRPS	Number of DMPM's.
NSETC	Number of sets of COAR's.
NSHOP(20)	Array of shop numbers.

Common Block /TWO/

IDLSWB(100)	Array of labor expenditures for each DMPM.
MATSWB(100)	Array of material expenditures for each DMPM.
MDSWB(100)	Array of mandays for each DMPM.
MDTOT(20,100)	Array of mandays for each shop and each DMPM.

Common Block /THREE/

DATE(3)	Date of data tabulation.
IPUN	Punch flag option.
YD(2)	Shipyard name abbreviation from data file.

Common Block /FOUR/

FACT	Percentage that SSI number 860 maps into corresponding SWBS.
IFS	Functional shop conversion flag.
ISG	Index for the number of DMPM's.
KFNSHP(20,10)	Array of functional shop numbers being mapped into.
KRLSHP(20)	Number of a particular real shop to be converted.
LSHOP(20)	Array of indirectly addressed shop numbers.
NFS(20)	Array of the number of functional shops KRLSHP is being mapped into.
NRLSHP	Number of real shops to be converted to functional shops.
NSEG	Number of data segments per input record.
PERFS(20,10)	Array of percent of real shops mapped into functional shops.

Common Block /FIVE/

IDOL(3)	Array of labor expenditures for a particular shop, SWBS, and COAR.
ISHOP(3)	Array of shop numbers.
MAT(3)	Array of material expenditures for a particular shop, SWBS, and COAR.
MD(3)	Array of mandays for a particular shop, SWBS, and COAR.

LOCAL VARIABLES

Main Program

I	Index for the planning modules.
J	Index for shops.

Subroutine DATIN

IRS	Index for NRLSHP.
IS	Index for the number of SSI values.
J	Index used for I/O statements.
JFS	Index used for I/O statements.
JJ	Upper limit of a COAR range.
JSSI	SSI array.
JSWBS(100,9)	Upper limit of a COAR range.
K	Index used for I/O statements.
KJ	Lower limit of a COAR range.
KSWBS(100,9)	Lower limit of a COAR range.
LOOP	Flag denoting the first COAR for a ship.
NCK	Number of COAR's in a set.
NF	Number of functional shops KRLSHP is being mapped into.
NSWB	Number of SWBS's per SWBS range.

Subroutine SCRITCH

IJ	Index for the number of COAR's of a set.
IK	Index for the number of sets of COAR's.
L1	Index used for I/O statements.
L2	Index used for I/O statements.
NCIK	Number of COAR's in a set.

Subroutine ACCUM

COAR	COAR
FAC(4)	Percentage that SSI number 860 maps into corresponding SWBS.
HEADER(30)	COAR header record.
I	Index for the number of segments on a particular data record.
IFAC(4)	SWBS numbers mapped into from SSI number 860.
IJ	Index for the number of COAR's of a set.
IK	Index for the number of sets of COAR's.
ISSFL	Flag denoting SSI numbers being used.
I860	Index for FAC and IFAC.
J	Index for shops; index used for I/O statements.
NCIK	Number of COAR's in a scratch file.
GNIX	Ynput record sequence number.
SWBS	SWBS number.

Subroutine REPORT

COM(20)	Comment in report headers.
I	Index for the shipyards.
IDLSUM(100)	Labor expenditures for each DMPM over a set of COAR's.
IJ	Index for NCF
ISG	Index for the number of DMPM's.
IY	Index for the shipyards.
IYDNO	Coded yard number.
J	Index used for I/O statements.
LSH	Index for the number of shops.
L1	Index used for I/O statements.
L2	Index used for I/O statements.
MATSUM(100)	Material expenditures for each DMPM over a set of COAR's.

Subroutine REPORT (Continued)

MDSHP(20,100)	Mandays for each shop of each DMPM over a set of COAR's.
MDSUM(100)	Mandays for each DMPM over a set of COAR's.
NCF	Number of COAR's in a scratch file.
NDOL	Labor expenditures for a set of COAR's.
NMAT	Material expenditures for a set of COAR's.
NMD	Mandays for a set of COAR's.
NREP	Output report numbers.
PER	Ratio of mandays of each DMPM to total for each COAR.
PERSHP(20)	Ratio of mandays of each shop to total for each DMPM and COAR set.
YARD(8)	Shipyard name abbreviation.

Subroutine FSHOPS

I	Index for the number of segments for a particular data record.
IRS	Index for NRLSHP.
J	Index for the shops.
JFS	Index for NF.
NF	Number of functional shops KRLSHP is being mapped into.

7.2.7 SAMPLE RUN

The CV 59 overhaul was selected for analysis in the sample run. The data consist of the repair COAR 16851, the ship alteration COAR 30851, and the ordinance alteration COAR 49851. The run was made with the alteration COAR's grouped together. The input card set-up and portions of the other input files are shown in this section. Output reports are also given.

Unit 11 - Card Input

```
3
116851
23085149851
3168513085149851
0
0
0
CV 59 --- REPAIRS --- REAL SHOPS
CV 59 --- ALTERATIONS --- REAL SHOPS
CV 59 --- REPAIRS AND ALTS --- REAL SHOPS
```

Unit 15 (Input) - SSI-to-SWBS Conversion File

002	830 844 856 986
010	833
013	853
014	841
018	986
019	841
020	982
021	982
022	986
028	986 211N
037	844
040	992 980 211N
042	994
043	997
053	990
080	845
083	851 211N
087	980 841 990 986N
090	982
091	980
111	151
131	111
1 32	112
156	191
170	167
176	125
177	122 512N 192N 529N
178	141
201	231 241 242 239 244 254
203	243
204	251
206	252
207	253
208	255
209	296
211	262
229	534
230	534
231	221
232	534
233	255
235	263
236	341
237	264
246	238
248	223
300	311
302	324
303	331
307	314
308	324
309	324
310	324
311	324
404	471

405	483	603	623
407	483	605	631
408	451	606	634
415	425	607	635
416	426	608	672
418	423	609	665
420	420	611	651
421	420	612	640
424	455	708	751
425	462	709	752
426	461	714	595
427	424	716	436
428	442	717	754
429	462	719	726
430	460	721	727
432	427	722	722
435	436	723	721
436	441	724	724
437	437	725	725
438	432	729	727
439	431	730	721
440	441	732	728
441	441	733	721
442	441	734	721
443	445	741	721
444	459	742	721
446	441	743	721
501	512	825	213
502	514	826	214 215
503	516	827	215
505	528	828	215
508	564	829	215
509	533	830	215
513	551	831	215
515	563	832	215
517	531	833	215
518	561	835	216
520	582	836	216
529	554	837	216
530	551	838	215
532	515	840	212
533	515	841	212
534	594	843	217
538	563	844	217
539	529	846	217
540	551	847	217
541	551	848	217
542	532	853	218 217
543	551	855	219
546	531	850	210 631 800 810 830 986 992 994
552	556		
553	556		
558	536		
559	532		
561	524		
562	529		
563	541		
564	563		
567	342		
568	593		

Unit 19 (Input) - SWBS-to-DMPM Conversion File

79
1001 100-100 110-124 130-160 164-164 166-166 192-192
1002 125-126
1003 161-161 191-191
1004 162-162
1005 163-163
1006 165-165
1007 167-169
1008 170-179
1009 180-187
2001 200-209 250-250
2002 210-219
2003 221-221 259-259
2004 222-222 234-234
2005 231-233
2006 235-239 223-224
2007 241-246
2008 247-247
2009 251-251
2010 252-252
2011 253-253 258-258
2012 254-256
2013 261-264 290-290
3001 310-312
3002 313-314 320-324 330-332
3003 341-343 390-390
3004 300-309
4001 411-412 493-493
4002 413-417
4003 422-424 426-427 494-494
4004 421-421 425-425
4005 430-446 495-495
4006 450-453 455-455 459-459
4007 454-454 492-492
4008 460-465
4009 470-476
4010 480-489
4011 400-409 490-491
5001 511-511 517-517
5002 512-513
5003 515-515
5004 514-514 516-516
5005 520-558 598-598
5006 562-562
5007 560-561 563-568
5008 570-573 581-585 589-589
5009 586-586
5010 587-587
5011 588-588
5012 591-592 594-597
5013 593-593
5014 500-509
6001 611-613 632-632
6002 631-631
6003 634-639

6004 644-644 656-656
 6005 655-655
 6006 641-643 645-645 650-654 661-664
 6007 660-660 665-665
 6008 670-673 690-690 698-699
 6009 608-610 640-640
 6010 620-625
 6011 633-633
 7001 710-711 720-721
 7002 712-713 722-723 772-773 780-780 782-783 790-790 792-792 797-799
 7003 724-728
 7004 730-733 748-743
 7005 750-754
 7006 760-763
 7007 700-709
 8001 810-813 896-897 802-802
 8002 820-820 830-839
 8003 840-845
 8004 850-859 890-890 892-895
 8005 891-891
 9001 982-982
 9002 980-981 983-989
 9003 990-994
 9004 995-995
 9005 997-997

Unit 12 (Output) - Illegal SWBS Numbers

[illegible]

Unit 14 (Output) - COAR Header Records

16231000	CV	59 FORRESTAL	P0076275	077227	0001157624	770813	1771804	602A00NORFOL	00001
16851000	CV	59 FORRESTAL	P0076275	077181	0044605897	770813	1771804	602A00NORFOL	00000
30851000	CV	59 FORRESTAL	P0076275	077181	0021738735	770813	1771804	242160NORFOL	01362
49851000	CV	59 FORRESTAL	P0076275	077181	0003053160	770810	1771804	197270NORFOL	01489
25038000	CVN	68 NIMITZ	PA076061	077181	000326500	770826	1771804	602A20NORFOL	00001
25048000	CVN	68 NIMITZ NON	PA077069	077192	0005427259	770826	1771804	602A50NORFOL	00003
26048000	CVN	68 NIMITZ NUC	PA077069	077192	000898830	770826	1771804	602A20NORFOL	00355
30048000	CVN	68 NIMITZ NUC	PA077069	077192	0009555730	770826	1771804	242130NORFOL	00391
32048000	CVN	68 NIMITZ NUC	PA077069	077192	0001488805	770826	1771804	242180NORFOL	00531
49048000	CVN	68 NIMITZ NON	PA077069	077192	0000988000	770826	1771804	197290NORFOL	00584
25186000	SSN	664 DEVILNON	PA077153	077213	0002803485	770831	1771804	602A00NORFOL	00001
26186000	SSN	664 DEVILNUC	PA077153	077213	000152024	770831	1771804	602A30NORFOL	00232
30186000	SSN	664 DEVILNON	PA077153	077213	000191521	770831	1771804	242100NORFOL	00253
25186000	SSN	664 DEVILNON	PA077153	077213	0002803485	770923	1771804	602A50NORFOL	00001
25264000	LKA	113 CHARLESTON	PA077147	077224	000250000	770923	1771804	602A30NORFOL	00232
26186000	SSN	664 DEVILNUC	PA077153	077213	000162024	770923	1771804	602A60NORFOL	00238
30186000	SSN	664 DEVILNON	PA077153	077213	000191521	770923	1771804	242130NORFOL	00259
25291000	FF	1091 MILLER	PA077206	077238	000275000	770928	1771804	602A10NORFOL	00001
30269000	SSN	675 BLUEFISH	PA077199	077234	0000078200	770928	1771804	379000NORFOL	00010

Unit 16 (Output) - DMPM Profile Report

REPORT: 63-84-1

DATE: 09/28/77

YARD: NORFOL

CV 59 --- ALTERATIONS ---- REAL SHOPS

DMPH PROFILE REPORT

COARS	30051	49051	0	0	0	0	0	0	0	0
DMPH	MATERIAL \$	LABOR \$	MAN DAYS	DMPH N.D./TOTAL N.D.						
1001	0	143	1	.000						
1002	0	0	0	.000						
1003	0	0	0	.000						
1004	0	0	0	.000						
1005	0	0	0	.000						
1006	0	0	0	.000						
1007	0	0	0	.000						
1008	0	0	0	.000						
1009	0	0	0	.000						
2001	0	0	0	.000						
2002	0	0	0	.000						
2003	0	0	0	.000						
2004	0	0	0	.000						
2005	0	0	0	.000						
2006	0	0	0	.000						
2007	4	343	2	.000						
2008	0	0	0	.000						
2009	0	0	0	.000						
2010	0	0	0	.000						
2011	0	0	0	.000						
2012	0	0	0	.000						
2013	0	0	0	.000						
3001	0	0	0	.000						
3002	0	0	0	.000						
3003	0	0	0	.000						
3004	0	0	0	.000						
4001	0	0	0	.000						
4002	915	9386	57	.001						
4003	925	17921	119	.001						
4004	0	0	0	.000						
4005	35816	189440	1745	.009						
4006	320476	1685923	9344	.083						
4007	0	515	4	.000						
4008	0	0	0	.000						
4009	0	0	0	.000						
4010	0	0	0	.000						
4011	184875	1197309	6994	.062						
5001	0	0	0	.000						
5002	0	0	0	.000						
5003	0	0	0	.000						
5004	267599	1051003	5347	.047						
5005	277225	2224441	13165	.116						
5006	0	0	0	.000						
5007	0	0	0	.000						
5008	0	0	0	.000						
5009	145654	936388	5465	.048						
5010	293272	2099437	12094	.107						
5011	0	0	0	.000						
5012	0	0	0	.000						
5013	127534	1058734	6129	.054						
5014	0	0	0	.000						
6001	0	0	0	.000						
6002	0	0	0	.000						
6003	0	0	0	.000						
6004	16	1098	7	.000						
6005	0	0	0	.000						
6006	0	0	0	.000						
6007	0	0	0	.000						
6008	0	0	0	.000						
6009	532153	2726881	14977	.132						
6010	0	0	0	.000						
6011	0	0	0	.000						
7001	0	0	0	.000						
7002	810841	6330484	36348	.321						
7003	0	0	0	.000						
7004	0	0	0	.000						
7005	0	0	0	.000						
7006	0	0	0	.000						
7007	0	0	0	.000						
8001	1071	306929	1948	.017						
8002	0	0	0	.000						
8003	0	0	0	.000						
8004	0	0	0	.000						
8005	0	0	0	.000						
9001	0	0	0	.000						
9002	0	6646	45	.000						
9003	0	0	0	.000						
9004	0	0	0	.000						
9005	0	0	0	.000						
TOTAL	2998376	19837121	113091							

REPORT: 63-84-1

DATE: 09/20/77 YARD: NORFOL

CV 59 --- REPAIRS --- REAL SHOPS

DMPH PROFILE REPORT

COARS	16491	0	0	0	0	0	0	0	0	0	0
DMPH	MATERIAL \$	LABOR \$	MAN DAYS	DMPH N.D./TOTAL N.D.							
1001	50023	1226350	7722	.035							
1002	0	0	0	0.000							
1003	91	1150	7	.000							
1004	0	0	0	0.000							
1005	107323	2101679	12390	.056							
1006	0	0	0	0.000							
1007	17500	164207	876	.034							
1008	3265	98046	445	.003							
1009	4340	101497	456	.003							
2001	127162	780745	4439	.020							
2002	0	0	0	0.000							
2003	512039	3299030	10100	.061							
2004	0	0	0	0.000							
2005	47614	325262	1099	.009							
2006	0	0	0	0.000							
2007	114139	842505	4062	.022							
2008	0	0	0	0.000							
2009	60666	923221	3032	.014							
2010	0	0	0	0.000							
2011	149904	813131	4319	.019							
2012	341753	1220700	5020	.027							
2013	131596	849027	4050	.022							
3001	193900	710176	3604	.016							
3002	193107	780609	3037	.016							
3003	746	70403	470	.002							
3004	0	0	0	0.000							
4001	3442	40401	290	.001							
4002	11	11	0	0.000							
4003	109103	803121	4903	.022							
4004	0	0	0	0.000							
4005	98009	407025	2757	.012							
4006	93475	350082	2020	.009							
4007	115015	569994	2905	.013							
4008	0	0	0	0.000							
4009	22146	110425	666	.003							
4010	11025	100070	605	.003							
4011	2324	74704	434	.002							
5001	46392	143330	737	.003							
5002	30661	557055	3549	.016							
5003	0	0	0	0.000							
5004	319204	853409	3793	.017							
5005	1112003	6509349	37322	.167							
5006	2009	46767	203	.001							
5007	31051	176102	1001	.004							
5008	127590	744153	4299	.019							
5009	31024	139527	790	.003							
5010	297964	2270062	13422	.060							
5011	337072	1050332	10470	.047							
5012	0	0	0	0.000							
5013	0	0	0	0.000							
5014	123907	955403	5009	.024							
6001	10436	140300	929	.004							
6002	190205	1062725	5017	.026							
6003	3450	45692	273	.001							
6004	6630	9406	20	.000							
6005	0	0	0	0.000							
6006	337521	1736240	9675	.043							
6007	27020	27020	0	0.000							
6008	0	0	0	0.000							
6009	1122	1704	4	.000							
6010	15045	200001	1294	.006							
6011	3	0	0	0.000							
7001	20009	200025	1205	.005							
7002	190912	1041300	6229	.029							
7003	0	0	0	0.000							
7004	0	0	0	0.000							
7005	0	0	0	0.000							
7006	0	0	0	0.000							
7007	0	0	0	0.000							
8001	9	20401	102	.001							
8002	149	4020	27	.000							
8003	0	0	0	0.000							
8004	0	0	0	0.000							
8005	0	0	0	0.000							
9001	10119	364171	2199	.010							
9002	22303	571555	3740	.017							
9003	90475	2692573	17494	.070							
9004	0	0	0	0.000							
9005	679	140005	1026	.005							
TOTAL	5040403	30014593	223105								

REPORT: 63-04-1

DATE: 09/28/77

YARD: NORFOL

CV 59 --- REPAIRS AND ALTS --- REAL SHOPS

DMPH PROFILE REPORT

COARS	16051	30051	49051	0	0	3	0	0	0	0
DMPH	MATERIAL \$	LABOR \$	MAN DAYS	DMPH M.D./TOTAL M.D.						
1001	50023	1226493	7723	.023						
1002	0	0	0	0.000						
1003	91	1150	7	.000						
1004	0	0	0	0.000						
1005	107323	2101679	12390	.037						
1006	0	0	0	0.000						
1007	17560	144287	876	.003						
1008	3265	98046	645	.002						
1009	4340	101497	656	.002						
2001	127162	700745	4439	.013						
2002	0	0	0	0.000						
2003	513339	3295030	10100	.054						
2004	0	0	0	0.000						
2005	47614	325262	1099	.006						
2006	0	0	0	0.000						
2007	114143	842929	4064	.014						
2008	0	0	0	0.000						
2009	60666	523221	3032	.009						
2010	0	0	0	0.000						
2011	149904	813131	4319	.013						
2012	341753	1226790	5920	.010						
2013	131596	845627	4050	.014						
3001	193986	710176	3464	.010						
3002	193187	706689	3637	.011						
3003	746	70483	470	.001						
3004	0	0	0	0.000						
4001	3442	46401	290	.001						
4002	926	9397	57	.000						
4003	110100	801042	5002	.015						
4004	0	0	0	0.000						
4005	125905	677265	3002	.011						
4006	374451	2041925	11364	.034						
4007	115015	550609	2909	.009						
4008	0	0	0	0.000						
4009	22146	110425	646	.002						
4010	11825	106973	605	.002						
4011	107201	1272393	7420	.022						
5001	43392	143330	737	.002						
5002	36661	557955	3649	.011						
5003	0	0	0	0.000						
5004	502003	1904492	9100	.027						
5005	1309220	8013790	50407	.150						
5006	2009	46767	203	.001						
5007	31051	176102	1001	.003						
5008	127590	744153	4259	.013						
5009	177478	1069915	6223	.019						
5010	551236	4370299	25516	.076						
5011	337072	1050332	10470	.031						
5012	0	0	0	0.000						
5013	127534	1050734	6129	.010						
5014	123907	955403	5409	.016						
6001	10436	140300	929	.003						
6002	193265	1042725	5017	.017						
6003	3450	45692	273	.001						
6004	6654	10504	27	.000						
6005	0	0	0	0.000						
6006	337521	1736240	9675	.029						
6007	27020	27020	0	0.000						
6008	0	0	0	0.000						
6009	533275	2720505	14901	.045						
6010	15045	200601	1294	.004						
6011	0	0	0	0.000						
7001	20009	206025	1205	.004						
7002	969753	7371070	42560	.127						
7003	0	0	0	0.000						
7004	0	0	0	0.000						
7005	0	0	0	0.000						
7006	0	0	0	0.000						
7007	0	0	0	0.000						
8001	1000	335390	2130	.006						
8002	149	4020	27	.000						
8003	0	0	0	0.000						
8004	0	0	0	0.000						
8005	0	0	0	0.000						
9001	16119	344171	2199	.007						
9002	22303	570201	3790	.011						
9003	53475	2693573	17494	.052						
9004	0	0	0	0.000						
9005	679	140605	1026	.003						
TOTAL	0030059	50051714	336276							

CV	59	---	REPAIRS	---	REAL SHOPS
CV	59	---	REPAIRS	---	REAL SHOPS

(SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH DMPN)

SHOP RATIO REPORT

[illegible]

DMPLVSHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99	TOT	MD
5001	.011	.000	.030	.115	.000	.037	.000	.000	.000	.000	.254	.391	.043	.008	.000	.020	.099	.000	.000	.000	.737	
5002	.018	.000	.041	.281	.000	.056	.019	.000	.065	.001	.352	.056	.017	.000	.000	.041	.052	.000	.000	.001	3649	
5003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
5004	.035	.000	.024	.029	.000	.030	.033	.000	.000	.001	.106	.593	.009	.000	.000	.012	.128	.000	.000	.000	3753	
5005	.033	.001	.038	.013	.000	.063	.215	.000	.052	.021	.070	.352	.025	.000	.001	.026	.091	.000	.000	.000	37322	
5006	.035	.000	.385	.000	.000	.254	.064	.000	.064	.000	.000	.000	.065	.000	.000	.071	.042	.000	.000	.000	283	
5007	.054	.001	.005	.004	.000	.015	.123	.000	.392	.015	.284	.050	.007	.000	.000	.008	.043	.000	.000	.000	1801	
5008	.034	.000	.115	.066	.000	.072	.067	.000	.262	.004	.174	.033	.030	.000	.000	.028	.116	.000	.000	.000	4259	
5009	.005	.000	.029	.011	.000	.074	.090	.000	.000	.000	.480	.266	.029	.000	.008	.018	.070	.000	.000	.000	758	
5010	.047	.003	.098	.013	.000	.134	.039	.000	.238	.042	.055	.215	.018	.000	.000	.018	.081	.000	.000	.000	13422	
5011	.035	.000	.080	.017	.000	.071	.159	.000	.259	.004	.081	.048	.050	.000	.000	.031	.162	.000	.000	.002	10470	
5012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
5013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
5014	.026	.000	.007	.006	.000	.042	.737	.000	.097	.000	.000	.067	.001	.000	.000	.016	.001	.000	.000	.000	5409	
6001	.051	.000	.041	.001	.000	.163	.009	.000	.005	.000	.009	.429	.023	.000	.000	.018	.245	.000	.000	.000	929	
6002	.064	.000	.107	.000	.000	.072	.000	.000	.000	.002	.000	.039	.027	.000	.000	.538	.151	.000	.000	.000	5817	
6003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.190	.000	.000	.000	.000	273	
6004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	20	
6005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
6006	.049	.000	.056	.341	.000	.130	.001	.000	.013	.000	.121	.180	.024	.000	.000	.030	.054	.000	.000	.000	9675	
6007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
6008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
6009	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	4	
6010	.018	.000	.152	.056	.000	.227	.025	.000	.005	.409	.002	.007	.019	.000	.000	.038	.043	.000	.000	.000	1294	
6011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7001	.264	.000	.001	.001	.000	.000	.027	.000	.163	.000	.051	.015	.005	.000	.002	.039	.023	.000	.000	.000	1205	
7002	.037	.000	.067	.040	.000	.031	.078	.000	.290	.012	.283	.049	.043	.000	.000	.017	.134	.000	.000	.000	6220	
7003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
8001	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.030	.000	.000	.000	.000	182	
8002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	27	
8003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
8004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
8005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
9001	.093	.000	.010	.022	.000	.015	.033	.000	.265	.035	.225	.165	.000	.000	.108	.002	.026	.000	.000	.000	2199	
9002	.014	.002	.009	.018	.000	.021	.080	.000	.191	.104	.199	.284	.017	.000	.002	.028	.030	.000	.000	.001	3745	
9003	.187	.000	.154	.004	.000	.012	.000	.000	.000	.001	.030	.012	.000	.000	.000	.010	.359	.000	.000	.000	17494	
9004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
9005	.334	.002	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.389	.000	.000	.000	.272	.000	.000	.000	1826	

REPORT: 63-04-2
DATE: 09/28/77

YARDS NORFOL

CV 59 --- ALTERATIONS --- REAL SHOPS

SHOP RATIO REPORT

(SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH ONPND)

[illegible]

DMPS\SHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99	TOT	MD
5001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5004	.031	.000	.114	.102	.000	.145	.018	.000	.000	.009	.093	.354	.062	.000	.000	.029	.064	.000	.000	.000	.000	5347
5005	.066	.000	.161	.072	.000	.155	.018	.000	.000	.003	.070	.246	.082	.000	.000	.042	.076	.000	.000	.000	.000	13165
5006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5009	.035	.002	.023	.009	.000	.043	.126	.000	.324	.003	.098	.101	.016	.000	.031	.027	.171	.000	.000	.000	.000	5465
5010	.002	.001	.034	.016	.000	.005	.134	.000	.294	.003	.065	.157	.021	.000	.000	.011	.097	.000	.000	.000	.000	12094
5011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
5013	.028	.000	.102	.015	.000	.252	.021	.000	.001	.007	.001	.246	.034	.000	.000	.003	.051	.000	.000	.000	.000	6129
5014	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6004	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	7
6005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6009	.068	.000	.156	.163	.000	.169	.013	.000	.000	.000	.140	.107	.004	.000	.001	.030	.061	.000	.000	.000	.000	14977
6010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7002	.024	.000	.171	.052	.000	.195	.051	.000	.076	.002	.008	.179	.055	.000	.000	.000	.031	.074	.000	.000	.001	36346
7003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
7007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8001	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1948
8002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
8005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
9001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
9002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	45
9003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
9004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
9005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0

DATE: 09/28/77 YARD: NORFOL

DATE: 09/28/77

CV 59 --- REPAIRS AND ALTS --- REAL SHOPS

SHOP RATIO REPORT
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(SHOP ENTRIES ARE MANNING RATIOS AND THEIR SUM = 1 FOR EACH DMPN)

[illegible]

DMPW SHOP	1	6	11	17	23	26	31	35	38	41	51	56	64	65	67	71	72	81	94	99	TOT	MO
5001	.011	.000	.030	.115	.000	.037	.000	.000	.000	.000	.254	.391	.043	.000	.000	.020	.099	.000	.000	.000	.737	
5002	.010	.000	.041	.201	.000	.056	.019	.000	.065	.001	.352	.056	.017	.000	.000	.041	.052	.000	.000	.001	3649	
5003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
5004	.032	.000	.077	.071	.000	.098	.024	.000	.000	.005	.098	.453	.029	.000	.000	.022	.091	.000	.000	.000	9100	
5005	.042	.000	.070	.029	.000	.087	.164	.000	.041	.016	.070	.324	.039	.000	.001	.030	.087	.000	.000	.000	50007	
5006	.035	.000	.305	.000	.000	.254	.064	.000	.064	.000	.000	.000	.005	.000	.000	.071	.042	.000	.000	.000	203	
5007	.054	.001	.005	.004	.000	.015	.123	.000	.392	.015	.204	.050	.007	.000	.003	.008	.043	.000	.000	.000	1001	
5008	.034	.000	.115	.066	.000	.072	.067	.000	.262	.004	.171	.033	.030	.000	.000	.028	.116	.000	.000	.000	4259	
5009	.031	.002	.023	.009	.000	.047	.121	.000	.264	.002	.128	.121	.018	.000	.028	.026	.159	.000	.000	.000	6223	
5010	.064	.002	.068	.015	.000	.111	.084	.000	.264	.023	.060	.107	.019	.000	.000	.015	.080	.000	.000	.000	25516	
5011	.035	.000	.080	.017	.000	.071	.159	.000	.259	.004	.081	.048	.050	.000	.000	.031	.162	.000	.000	.002	10470	
5012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
5013	.028	.000	.102	.015	.000	.252	.021	.000	.001	.007	.081	.246	.034	.000	.000	.000	.063	.051	.000	.000	6129	
5014	.026	.000	.007	.006	.000	.042	.737	.000	.097	.000	.000	.067	.001	.000	.000	.016	.001	.000	.000	.000	5409	
6001	.051	.000	.041	.001	.000	.169	.009	.000	.005	.000	.009	.429	.023	.000	.000	.018	.245	.000	.000	.000	929	
6002	.064	.000	.107	.000	.000	.072	.000	.000	.000	.002	.000	.039	.027	.000	.000	.038	.151	.000	.000	.000	5017	
6003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.010	.000	.000	.000	.000	.000	.000	.000	273	
6004	.259	.000	.000	.741	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	27	
6005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
6006	.049	.000	.056	.341	.000	.130	.301	.000	.013	.000	.121	.180	.024	.000	.003	.030	.054	.000	.000	.000	9675	
6007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
6008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
6009	.060	.000	.156	.163	.003	.169	.013	.000	.008	.000	.140	.107	.084	.000	.001	.030	.061	.000	.000	.000	14901	
6010	.018	.003	.152	.056	.000	.227	.025	.000	.005	.409	.002	.007	.019	.000	.000	.038	.043	.000	.000	.000	1294	
6011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7001	.264	.003	.001	.001	.000	.000	.027	.000	.163	.000	.061	.015	.005	.000	.000	.042	.039	.023	.000	.000	1205	
7002	.026	.000	.155	.050	.000	.171	.055	.000	.109	.003	.105	.160	.053	.000	.000	.029	.063	.000	.000	.000	42560	
7003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
7007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
8001	***	.003	.000	.000	.000	.000	***	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	2130	
8002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	27	
8003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
8004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
8005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
9001	.093	.000	.010	.022	.000	.015	.033	.000	.265	.035	.225	.165	.000	.000	.000	.000	.000	.000	.000	.000	2199	
9002	.014	.002	.008	.018	.000	.026	.079	.000	.194	.103	.197	.281	.017	.000	.002	.028	.030	.000	.000	.001	3790	
9003	.107	.000	.154	.004	.000	.012	.000	.000	.001	.000	.001	.030	.012	.000	.000	.010	.359	.000	.000	.000	17494	
9004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
9005	.334	.002	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.369	.000	.000	.000	.272	.000	.000	.000	1026	

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DMPW SHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99	TOT MO
5801	0	0	22	05	0	27	0	0	0	0	107	208	32	0	0	15	73	0	0	0	737
5802	66	0	146	1025	0	204	71	0	237	3	1205	204	62	0	0	151	190	0	0	3	3649
5803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5804	130	0	90	107	0	114	122	0	0	0	390	2227	33	0	0	46	402	0	0	0	3753
5805	1236	24	1420	500	0	2344	8017	0	1943	774	2603	13134	916	0	38	956	3390	6	0	5	37322
5806	10	0	109	0	0	72	10	0	10	0	0	0	24	0	0	20	12	0	0	0	203
5807	54	1	5	4	0	15	123	0	392	15	204	50	7	0	0	0	43	0	0	0	1001
5808	144	0	409	279	0	306	206	0	1117	19	739	139	127	0	0	110	496	0	0	0	4259
5809	4	0	22	0	0	56	60	0	0	0	303	202	22	0	6	14	53	0	0	0	750
5810	635	35	1319	170	0	1000	523	0	3109	550	740	2003	237	0	0	237	1006	2	0	0	13422
5811	365	0	034	103	0	745	1660	0	2715	45	044	499	526	0	0	329	1694	0	0	23	10470
5812	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5813	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5814	141	2	37	30	0	227	3904	0	527	2	0	365	4	0	0	0	0	0	0	0	5409
6001	47	0	30	1	0	157	0	0	5	0	0	399	21	0	0	17	220	0	0	0	929
6002	370	0	624	1	0	419	0	0	0	9	0	227	156	0	1	3129	801	0	0	0	5017
6003	0	0	0	0	0	0	0	0	0	0	0	0	221	0	0	52	0	0	0	0	273
6004	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
6005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6006	475	0	543	3299	0	1254	13	0	130	0	1175	1744	232	0	0	209	521	0	0	0	9675
6007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6009	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
6010	23	0	197	73	0	294	32	0	6	529	2	9	25	0	0	49	55	0	0	0	1294
6011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7001	310	0	1	1	0	0	33	0	196	0	73	10	6	0	404	47	20	0	0	0	1205
7002	232	0	414	249	0	193	400	0	1002	72	1260	302	265	0	0	107	036	0	0	0	6220
7003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8001	102	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	102
8002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
8003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9001	204	0	23	49	0	34	73	0	503	70	494	362	0	0	237	4	50	0	0	0	2199
9002	53	9	32	67	0	77	299	0	715	391	746	1062	65	0	6	105	113	0	0	5	3745
9003	3267	0	2701	73	0	200	0	0	10	0	14	531	210	0	0	101	6277	0	0	4014	17494
9004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9005	343	2	3	0	0	0	0	0	0	0	0	0	399	0	0	0	279	0	0	0	1026

DMPH\SHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99 TOT MD
5001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5004	165	0	610	543	0	774	96	0	0	46	498	1891	227	0	0	155	342	0	0	5347
5005	868	0	2117	952	0	2047	241	0	113	36	927	3240	1077	0	0	547	1888	0	0	13165
5006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5009	190	13	123	51	0	235	686	0	1768	15	492	551	90	0	170	145	936	0	0	5465
5010	990	9	416	198	0	1022	1625	0	3954	34	787	1899	254	0	0	137	1169	0	0	12894
5011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5013	172	0	1118	92	0	1542	129	0	4	45	494	1508	206	0	0	508	311	0	0	6129
5014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6004	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6009	1014	0	2330	2445	0	2535	192	0	125	5	2090	1609	1254	0	14	445	916	0	0	14977
6010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7002	871	0	6204	1872	0	7091	1862	0	2819	71	3207	6497	2003	0	0	1133	2689	0	0	36348
7003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8001	1948	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1948
8002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9002	0	0	0	0	0	20	0	0	20	0	2	3	0	0	0	0	0	0	0	45
9003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

YARD: NORFOL

CV 59 --- REPAIRS AND ALTS --- REAL SHOPS

SMOP MANNING REPORT

(SHOP ENTRIES ARE MAN DAYS)

[illegible]

DMPVSHOP	1	6	11	17	23	26	31	36	38	41	51	56	64	65	67	71	72	81	94	99	TOT
5001	8	0	22	85	0	27	0	0	0	0	187	288	32	0	0	15	73	0	0	0	737
5002	66	0	148	1025	0	204	71	0	237	3	1265	204	62	0	0	151	190	0	0	3	3649
5003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5004	295	0	703	650	0	888	218	0	0	50	896	4118	260	0	0	201	824	0	0	0	9100
5005	2104	24	3545	1452	0	4391	8258	0	2056	810	3530	16374	1993	0	38	1503	4398	6	0	5	50487
5006	10	0	109	0	0	72	18	0	18	0	0	0	24	0	0	20	12	0	0	0	283
5007	54	1	5	4	0	15	123	0	392	15	284	50	7	0	0	8	43	0	0	0	1001
5008	144	0	489	279	0	306	286	0	1117	19	739	139	127	0	0	118	496	0	0	0	4259
5009	194	13	145	59	0	291	754	0	1768	15	795	753	112	0	176	159	989	0	0	0	6223
5010	1625	44	1735	376	0	2822	2148	0	6743	592	1527	4782	491	0	0	374	2255	2	0	0	25516
5011	365	0	834	183	0	745	1668	0	2715	45	844	499	526	0	0	329	1694	0	0	23	10470
5012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5013	172	0	1118	92	0	1542	129	0	4	45	494	1508	206	0	0	508	311	0	0	0	6129
5014	141	2	37	30	0	227	3984	0	527	2	0	365	4	0	0	84	6	0	0	0	5409
6001	47	0	38	1	0	157	8	0	5	0	8	399	21	0	0	17	228	0	0	0	929
6002	370	0	624	1	0	419	0	0	0	9	0	227	156	0	1	3129	881	0	0	0	5817
6003	0	0	0	0	0	0	0	0	0	0	0	0	221	0	0	52	0	0	0	0	273
6004	7	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
6005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6006	475	0	543	3299	0	1254	13	0	130	0	1175	1744	232	0	0	289	521	0	0	0	9675
6007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6009	1018	0	2330	2445	0	2535	192	0	125	5	2090	1609	1254	0	14	445	916	0	0	3	14981
6010	23	0	197	73	0	294	32	0	6	529	2	9	25	0	0	49	55	0	0	0	1294
6011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7001	318	0	1	1	0	0	33	0	196	0	73	18	6	0	484	47	28	0	0	0	1205
7002	1103	8	6618	2121	0	7284	2350	0	4621	143	4467	6799	2268	0	0	1240	3525	0	0	21	42568
7003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8001	2130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2130
8002	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27
8003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9001	204	0	23	49	0	34	73	0	583	78	494	362	0	0	237	4	58	0	0	0	2199
9002	53	9	32	67	0	97	299	0	735	391	748	1065	65	0	6	105	113	0	0	5	3790
9003	3267	8	2701	73	0	288	0	0	18	8	14	531	218	0	0	181	6277	0	0	4014	17494
9004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9005	343	2	3	0	0	0	0	0	0	0	0	0	399	0	0	0	279	0	0	0	1026

